

REMARKS

Claims 1-38 are presented for consideration, with Claims 1, 24, 29, 30, 32, 34, 36 and 38 being independent.

The independent claims have been amended to further distinguish Applicants' invention from the cited art.

Initially, Claim 21 was rejected under 35 U.S.C. §112, second paragraph, as being incomplete for allegedly omitting essential structure cooperative relationships of elements. This rejection is respectfully traversed.

Claim 21, which is a method claim, recites that a period associated with a cyclic opacity change is selected at random for each shape element, and depends from Claim 20 (reciting that the opacity is varied in a cyclic fashion), which in turn depends from Claim 19 (which recites varying the opacity of one or more of the shape elements overtime). In the method of Claim 20, therefore, one or more of the shape elements have associated periods that define a cyclic opacity change, and such periods are selected at random for each shape element. It is respectfully submitted that how the cyclic change is randomly selected does not have to be set forth in this claim, as selecting a period at random, *per se*, is known in the art. Accordingly, reconsideration and withdrawal of the rejection of Claim 21 under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1-37 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Aono '633 in view of the Turk article. This rejection is respectfully traversed.

Claim 1 of Applicants' invention relates to a method of generating a colored or

shaded texture for images, with the images to be displayed on a display device or printed. The method includes the steps of providing a plurality of shape elements, each shape element defining a surface, providing each of the shape elements with an opacity which varies over its surface, and identifying a plurality of substantially equidistant points within a predetermined region of the images. Additional steps include placing a shape element at each identified point so that adjacent shape elements overlap to fill the predetermined region of the images such that the region when so filled has a substantially uniform opacity, and rendering the shape elements for output to a printer or display device, such that the overlapping opacities generate a colored or shaded texture.

In accordance with Applicants' claimed invention, a high quality image can be generated.

The primary citation to Aono is directed to a geometric preprocessor for Gouraud-shading, wherein an intensity value is calculated at each vertex of geometric data. With reference to Figure 19, a subdivided region having adjacent vertices is shown. In contrast to the assertion in the Office Action, however, Aono is not read to teach or suggest that each shape element has an opacity which varies over its surface. It follows, therefore, that Aono would not place the shape elements at identified points so that adjacent shape elements overlap to fill a predetermined region of the images such that the region when filled has a substantially uniform opacity. Instead, Aono is understood to use an item buffer to calculate how light is diffused and reflected at surfaces of the object in the three-dimensional space (see, for example, column 4, line 60 through column 5, line 9).

The secondary citation to Turk is directed to texture mapping for enhancing a visual richness of a computer generated image and was cited for teaching the overlapping of a shape element at each point. As understood, however, Turk relates to a reaction-diffusion process for texture synthesis, and has no teaching or suggestion of providing shape elements with an opacity which varies over their surface or filling a region with overlapping images to provide a substantially uniform opacity.

It is respectfully submitted, therefore, that it would not have been obvious, absent hindsight, to combine the reaction-diffusion process in Turk with the intensity value smoothing method of Iono. Furthermore, even assuming, arguendo, the art could have been combined in the manner proposed in the Office Action, such a combination still fails to teach or suggest, among other features, a generated method that includes providing each of the shape elements with an opacity which varies over its surface, and overlapping adjacent shape elements so that a filled region has a substantially uniform opacity.

The other independent claims, i.e., Claims 24, 29, 30, 32, 34, 36 and 38, can also be distinguished over the cited art for at least the same reasons discussed above with respect to Claim 1.

Thus, reconsideration and withdrawal of the rejection of the claims under 35 U.S.C. §103 is deemed to be in order and such action is respectfully requested.

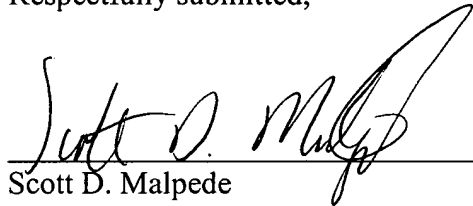
Accordingly, it is submitted that Applicants' invention as set forth in independent Claims 1, 24, 29, 30, 32, 34, 36 and 38 is patentable over the cited art. In addition,

dependent Claims 2-23, 25-28, 31, 33, 35 and 37 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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